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| APPLICATION NO.                    | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/717,857                         | 11/19/2003  | David Khoury         | 718395.55           | 5165             |
| 27128                              | 7590        | 09/30/2004           | EXAMINER            |                  |
| BLACKWELL SANDERS PEPER MARTIN LLP |             |                      | ORTIZ, ANGELA Y     |                  |
| 720 OLIVE STREET                   |             |                      | ART UNIT            |                  |
| SUITE 2400                         |             |                      | PAPER NUMBER        |                  |
| ST. LOUIS, MO 63101                |             |                      | 1732                |                  |

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/717,857

Applicant(s)

KHOURY, DAVID

Examiner

Angela Ortiz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date (1).
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakieski, USP 4,809,949 in view of Grove, USP 3,293,342.

The cited primary reference substantially teaches the basic claimed valve including a valve element comprising providing a metal valve body 12 molded or cast to provide a valve seat surface and dimensioned to receive a plug body. The valve plug element 10 is molded of a plastic polymer material, and is rotatably received within the valve body 10. The valve body 12 is provided with seat surfaces 14 and 15, and the plug element is molded with grooves that receive elastomeric seals. The seat surfaces of the valve body provide engages the valve plug element so that an effective seal is

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created when the plug element is biased into the valve body. See col. 3, line 45 to col. 4, line 60; col. 6, lines 20-30.

The cited primary reference does not teach casting the valve body and molding the plug element without machining per se, nor the molding of dual plastic materials for the plug element and the sealing ridge.

The added secondary reference teaches as conventional the feature of molding a valve sealing means of dual plastic materials wherein an annular seal member is formed of a rigid plastic material. The seal member is provided with a recess, and an elastomeric material is molded within the recess, and formed with a sealing ridge to create an effective seal when engaged by an opposing surface. A dual material seal prevents the need for adding o-rings to create a similar effect, thus making assembly easier. See col. 2, lines 15-72 and claims 1-6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to mold the plug member of the primary reference of two materials, in view of the added reference, for avoiding the insertion of additional o-rings and making assembly of the valve more facile.

Note that the primary reference does not have a positive statement that the valve parts are machined; thus the limitation of the molding without machining is deemed met by the applied reference, and would further have been obvious to include for avoiding an additional processing step.

With respect to claims 2 and 4-7, see the primary reference wherein valve body 12 includes a conical cavity, valve seat surfaces, and the plug element includes sealing ridges, see figures 2-3, col. 4, lines 5-40.

With respect to claims 3 and 18, note that the use of the claimed materials, namely metal and dual plastic materials, is disclosed in both references as discussed above.

With respect to claim 8, note the configuration of the valve in USP 4,808,949 in figures 2-3 and col. 5, lines 25-35.

With respect to claims 9-10, 14-17, 19-21, the shape and number of the sealing ridges is deemed an obvious improvement dependent on the use of the finally molded article and is within the choice of the practitioner.

With respect to claims 11-12, note that the added reference USP 3,293,342 shows as conventional the use of a compression spring at the end of seal member 21; it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a spring for biasing the seal as desired.

#### ***Allowable Subject Matter***

Claim 22 would be allowable if rewritten to include the specific material for the pliable material, together with the specific material for the biasing mechanism; or a combination of claim 22 and claim 12 and claim 18 if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

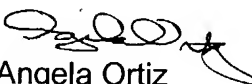
**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP's Re.25560; 3861646; 4705058; 4494730; 4671915; 4410479; 4269802; 4468367; 4743422; PCT 91/06797.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Angela Ortiz  
Primary Examiner  
Art Unit 1732